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ABSTRACT

This first volume of the interim report on the Study of New Youth Initiatives in Apprenticeship presents a discussion of site visit findings and implementation issues related to the United States Department of Labor's Apprenticeship-School Linkage Demonstrations. (Volume 2, site visit reports, is available separately as CE 032 792.) Chapter 1 introduces the Youth Apprenticeship Projects, explains purpose and limitations of the interim report, and details the report's organization. Chapter 2 overviews all of the apprenticeship-school linkage demonstrations. It consists of five summary sections, including information on the local context/operating environment, administration, program activities, developmental strategies, and operational experiences of the eight Youth Apprenticeship Projects. Chapter 3 discusses seven major issues arising from implementation of the projects: interface between the Department of Labor and relevant educational organizations, influence of type of sponsoring organization, impact of the reporting system, dual participation of Bureau of Apprenticeship and Training and Office of Youth Programs, role of cooperative education, involvement of local labor unions, and status of independent efforts to replicate the apprenticeship-school linkage concept. (YLB)

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INTERIM REPORT
STUDY OF NEW YOUTH INITIATIVES IN APPRENTICESHIP
VOLUME 1: SUMMARY AND ISSUES

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Prepared for

Employment and Training Administration
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I. INTRODUCTION

This interim report on the Study of New Youth Initiatives in Apprenticeship presents a discussion of site visit findings and implementation issues related to the U.S. Department of Labor's Apprenticeship-School Linkage Demonstrations. Individual site visit reports on each of the eight Youth Apprenticeship Projects are included as Volume 2 of this report. The major focus of this volume of the report is to provide a summary of major site visit findings and to discuss key implementation issues.

This introductory chapter provides some background on the projects; presents an overview of the research study; outlines the specific purposes of the interim report; explains the interim report's limitations; and details the overall organization of the report.

BACKGROUND ON THE DEMONSTRATIONS

Since late 1977, the U.S. Department of Labor has funded eight separate Apprenticeship-School Linkage Demonstrations. These projects, located in different areas of the U.S. and under different types of sponsors, have been designed to test the concept of greater linkages between apprenticeship and secondary education, especially vocational education.

The first four demonstration projects were funded in late 1977 and began operations during the 1977-78 school year. These Youth Apprenticeship Projects were located in:

- Cleveland, Ohio;
- Houston, Texas;
- Nashville, Tennessee; and,
- New Orleans, Louisiana.

The second four Youth Apprenticeship Projects were funded in the fall of 1978 and began operations during the 1978-79 school year. These projects were located in:

- Des Moines, Iowa;
- New Jersey (statewide);
- Rhode Island (statewide); and,
- Rockford, Illinois.

Currently, seven of the eight Youth Apprenticeship Projects are still in operation. The Houston project, which operated during the 1977-78 school year, was discontinued in September of 1978. Negotiations are underway presently between the sponsors and the Office of Youth Programs of the U.S. Department of Labor to extend the funding of the seven operating Youth Apprenticeship Projects through September of 1981. Except for the Houston project, funding from the U.S. Department of Labor for the demonstrations has been continuous. However, funding has been from two different agency sources and on a year-by-year basis.

The unique feature of all of the Youth Apprenticeship Projects is the placement of high school seniors in registered apprenticeship positions with local employers. Twelfth grade students, sixteen years of age and older, are employed part-time as registered apprentices during their senior year and then are expected to continue in the same jobs as full-time apprentices after high school graduation. The major thrust of the Youth Apprenticeship Projects is to reduce youth unemployment and ease the transition of students from school to work. The programmatic intervention is implemented through the system of registered apprenticeship.

Project staff at the demonstrations recruit high school students for apprenticeship, find apprenticeable job slots with local employers, initiate individual apprentice and apprenticeship program registrations and monitor the

work performance of the student apprentices while they are still in school. Also, project coordinators perform a variety of promotional and coordinative activities to develop apprenticeship placements and facilitate the linkages between secondary schools and the apprenticeship system. A registration goal, i.e., a targeted number of high school students to be registered as apprentices, has been established for each of the projects.

Except for one Youth Apprenticeship Project, training stipends--based upon fifty percent of each student's wages and up to a maximum of $1700 per student per year--have been made available to employers of the apprenticed students. The training stipends have been included in the project design to act as an incentive to promote employer participation. However, training stipends to employers are applicable only while the apprentices are enrolled in high school, i.e., the stipends cease when the student graduates or drops out of school.

The concept of apprenticeship-school linkage is fairly simple, but the implementation of such linkages is more complex than might be anticipated. School systems, instructional programs, school personnel, the Bureau of Apprenticeship and Training (BAT), and State Apprenticeship Councils (SACs), when appropriate, all become involved in the process of linkage. Both students and employers must agree to the standards of apprenticeship in order for the students to be employed as registered apprentices. Schools have to adhere to their respective state laws and school policies regarding work release time, school attendance and grading. In short, implementation of the apprenticeship-school linkage concept involves a variety of interactions among different agencies and organizational systems. Also, such linkages entail an array of interfaces among different people who have very diverse roles and responsibilities in their respective organizations.

In summary, the Youth Apprenticeship Projects are an attempt by the U.S. Department of Labor to test the concept of apprenticeship-school linkage through limited implementation. The projects have been established in a variety of geographic settings and with different types of sponsors. This diversity--in addition to the particular interactions of different organizational systems involved--is an integral part of the U.S. Department of Labor's attempt to determine whether registered apprenticeship training for high school students is a viable approach to helping youth bridge the gap between school and work.

OVERVIEW OF THE RESEARCH STUDY

The Study of New Youth Initiatives in Apprenticeship is designed to examine the complex process of apprenticeship-school linkage implementation and to assess the impact of project participation on student participants, employers, and schools. Consequently, the research effort for the study has been separated into two phases, a Phase I process evaluation and a Phase II impact assessment.

Phase I of the research study, the results of which are included in this interim report, involved the examination of the initial development and operations of each of the eight demonstration projects. Site visits were conducted at each project location, including the site of the discontinued Houston project, by senior level members of the study team. Interviews were conducted with the relevant project directors, BAT project monitors, project staff, advisory committee members, school personnel, employers, apprentices and other individuals associated with project implementation. The site visits had four purposes: (1) to gain some understanding of the development and current oper-

ations status of the projects; (2) to assess the types of problems and implementation issues involved; (3) to identify salient features generally characteristic of all the demonstrations; and (4) to assist the study team in designing the Phase II impact assessment.

Table 1 presents the number of interviews conducted during the Phase I site visits. Categories for the interviews are indicated for each Youth Apprenticeship Project. In total, 162 interviews were conducted during the Phase I site visits. The interviews were not structured formally, although content areas were established using a detailed interview guide developed by the study team.

Individual site visit reports were written on each Youth Apprenticeship Project according to a specified outline. Subsequently, the study team met for a debriefing and Phase II design meeting to discuss and compare major findings from the site visits. Following the Phase II design meeting, a data collection package was prepared and submitted to DOL and OMB. Also, the site visit reports were revised, edited and submitted to the Department of Labor in draft form. Copies of the draft site visit reports were sent to relevant individuals at each Youth Apprenticeship Project for review and comment. Those participating in the review process included the BAT Regional Director, the BAT Project Monitor and the Project Director associated with each Youth Apprenticeship Project. The individual site visit reports presented in Volume 2 of this interim report represent the culmination of the Phase I planning, the site visit investigations, the study team discussions, and the report review process.

Phase II of the Study of New Youth Initiatives in Apprenticeship has been designed to examine specific outcomes of the Youth Apprenticeship Projects.

TABLE 1

SUMMARY OF INTERVIEWS BY PROJECT LOCATION

AND TYPE OF RESPONDENT

Project Locations	BAT Monitor	Project Director	Project Staff	Advisory Committee Members	School Personnel	Employers	Apprentices	Other*	Total
Cleveland	1	1	3	4	2	5	4	1	21
Houston	1	-	2	1	5	2	-	3	14
Nashville	1	1	5	5	6	2	1	-	21
New Orleans	1	1	4	2	5	5	3	1	22
Des Moines	1	1	-	2	8	4	3	-	19
New Jersey	1	1	1	6	8	1	1	3	22
Rhode Island	1	1	7	3	5	5	3	2	27
Rockford	1	1	2	1	4	2	5	-	16
Total	8	7	24	24	43	26	20	10	162

*SAC members and other BAT personnel.

The impact assessment will be based upon data collected in structured interviews with various apprentices, comparison students, employers, work supervisors, school principals, coordinators in the schools, and vocational education instructors. The data collection package for the study and the interview instrument for Phase II were approved by OMB on May 22, 1980. Data collection for the Phase II impact assessment currently is underway.

The interview instruments for Phase II of the study focus on those experiences and opinions which are appropriate for each respondent group. For example, employers will be asked--based upon their participation in the Youth Apprenticeship Projects--whether they plan to continue using registered apprenticeship as a form of employee training. Vocational education instructors will be asked questions about any impact the projects may have had on their instruction and curricula. Comparison students will be used as quasi-controls in the examination of impacts of the projects on the apprentices. This important feature of the study design is critical to the assessment of the project's impact upon the later employment status of the student apprentices. The comparison group also will provide information concerning the degree to which the Youth Apprenticeship Projects help ease the transition of participants from school to work. Finally, a linked-sample approach using sampled student apprentices as the basis for sampling professional respondents (employers and educators) has been employed in the Phase II survey research effort. In this way, impacts on other relevant actors in the projects, e.g., employers and school personnel, can be assessed in relation to the specified random sample of student participants.

In summary, the Study of New Youth Initiatives in Apprenticeship is a two-phase effort to provide a comprehensive and detailed examination of the

implementation characteristics and impacts of the Youth Apprenticeship Projects. The relevant methodologies include both case study (i.e., the site visit reports on the individual projects), and statistical analysis of survey data collected from the relevant respondent groups.

PURPOSE OF THE INTERIM REPORT

The general purpose of this interim report is to present the findings and conclusions of the Phase I research efforts on the Study of New Youth Initiatives in Apprenticeship. The specific purposes of this interim report are presented below:

- To summarize and compare major findings regarding the implementation and overall operations of the different projects;
- To discuss major implementation issues as they relate to the overall concept and development of apprenticeship-school linkages; and,
- To present the individual site visit reports which were completed for each of the eight Youth Apprenticeship Projects.

The summary and comparisons of the projects generally reflect the findings presented in the individual site visit reports. However, in a few instances new data have been presented in the comparisons that are not included in the individual site visit reports. Also, when possible, newer information, e.g., the number of apprentice registrations at each project, has been included in the summary. The purpose of this inclusion of new data was to make the interim report as current to present project operations as possible.

The discussion of the major implementation issues related to the overall concept and development of apprenticeship-school linkages is based upon an analysis of the differences and similarities in the findings concerning the

individual projects. In general, the discussion of implementation issues focuses on major principles regarding project implementation. In many instances, the particular implementation issues were suggested during the debriefing discussions among the study team members. In other cases, the sense of particular issues developed from information received after the site visit reports had been completed.

Each site visit report is self-contained and all eight site visist reports have been organized within the same general format. The discussions in each individual report are, of course, much more detailed than possible in the summary and comparisons presented in Chapter II of this volume. However, this is not the case with the discussion of overall implementation issues presented in Chapter III. CSR project staff concluded that a major purpose of this interim report was to identify and more fully develop the key issues related to implementation. Therefore, the implemenation issues are treated in this volume in a more detailed and comprehensive manner than in any of the individual site visit reports.

LIMITATIONS OF THE INTERIM REPORT

Except as noted in the previous sections, the observations presented in this interim report are restricted to the particular time frame of the site visits. In other words, the circumstances and situations that were observed at the time of the site visits may have changed since the site visits were conducted. This limitation regarding change, while somewhat unavoidable given the design of Phase I of the present research study, is likely to be more significant in the case of the projects initially funded in 1978. For example, at the time of the site visits, these projects had been in operation for

about 10 months. By comparison, the older apprenticeship-school linkage projects, (with the exception of the Houston project), had been in operation for nearly 23 months. Thus the different stages of project implementation at the projects should be considered with respect to the individual site visit findings and with respect to the summary and comparisons presented in this interim report. Considering the start-up problems experienced by almost all of the projects, operations at the projects may have reflected different levels of stability or instability at the time of the site visits.

Limitations regarding the comparability of data presented in this report will be noted in the appropriate report sections. However, one general limitation regarding the data presented in parts of Chapter II is pervasive and needs to be noted here. The different service areas of the projects vary considerably. Thus, the data presented do not always match the precise areas served by the demonstration projects. Further, statistical tests have not been employed in any of the data comparisons, even when the data are comparable.

Additionally, the observations and conclusions presented in this report represent the professional judgment of highly qualified members of the study team. Nonetheless, the site visits were conducted over a relatively short period of time. Consequently, some nuances of organizational interactions and project operations may have been missed during the site visits and the subsequent process evaluations. Any such errors of fact or interpretation are the responsibility of the project team members.

Finally, since this report presents only Phase I findings on the Study of New Youth Initiatives in Apprenticeship, the information contained in the report is neither comprehensive nor complete. Consequently, while there is a

purpose for presenting preliminary findings, final evaluations and conclusions necessarily have to await the results from Phase II of the study which will be presented in the project's Final Report.

ORGANIZATION OF THE REPORT

Volume I of the interim report is organized within three major chapters. Chapter I provides an introduction to the Youth Apprenticeship Projects; presents an overview of the research project; explains the purposes and limitations of the interim report; and concludes with an outline of the report's organization. Major findings from Phase I of the study are presented in Chapters II and III. Chapter II, which follows, presents an overview of all of the apprenticeship-school linkage demonstrations. Chapter II consists of five summary sections, including information on the operating environments, administration, program activities, developmental strategies and operational experiences of the eight Youth Apprenticeship Projects. Chapter III, the final chapter, presents a discussion of seven major issues: the interface between the Department of Labor and the relevant educational organizations, the influence of the type of sponsoring organization, the impact of the reporting system, the dual participation of BAT and OYP, the role of cooperative education, the involvement of local labor unions, and the status of independent efforts to replicate the apprenticeship-school linkage concept. Volume II of the interim report includes the individual site visit reports prepared for each of the eight Youth Apprenticeship Projects.

II. OVERVIEW OF THE LOCAL PROJECTS

The previous chapter of this report provided a general introduction to the U.S. Department of Labor's Apprenticeship-School Linkage Demonstrations. This chapter consists of five separate sections regarding the Youth Apprenticeship Projects. The sections follow the outline which served to organize the contents of the individual site visit reports. Specifically, this chapter presents a discussion of the local context, or operational environment, of the demonstration projects; provides administrative information regarding the management structure and organization of the projects; outlines the major program activities of each project such as number of individual apprentice registrations; provides a discussion of developmental strategies employed at the sites to promote the projects; and presents a discussion of the major operational experiences of the demonstrations as a whole. The purpose of this chapter is to highlight and compare major features of all of the Youth Apprenticeship Projects.

LOCAL CONTEXT

This section of the chapter describes some general features of the local areas in which the Youth Apprenticeship Projects operate. In general, the intent of this section is to describe the major differences in the local contexts in which the Youth Apprenticeship Projects have been implemented. The information provided, e.g., unemployment rates, industrial characteristics, and vocational education characteristics, does not always match the specific service areas of the projects. Thus, the data provided are considered only as indicators of the diverse environments of the different projects.

The eight Youth Apprenticeship Projects were located in areas which were intended to meet the criteria of (1) relatively low unemployment, (2) availability of facilities for skill training in apprenticeable trades, and (3) support of the concept of apprenticeship-school linkage within the apprenticeship community. Basically, it was the intent of the U.S. Department of Labor to locate the demonstrations in areas that would not impose severe constraints on the implementation of the apprenticeship-school linkage concept. The sites for the first four Youth Apprenticeship Projects, i.e., Cleveland, Houston, Nashville and New Orleans, were determined after investigations and site visits by the Secretary of Labor's Apprenticeship-School Linkage Task Force. The second four Youth Apprenticeship Projects, located in Des Moines, Rockford, and the states of New Jersey and Rhode Island, were identified based upon proposals submitted to BAT.

As might be expected from the different locations of the eight Youth Apprenticeship Projects, the demonstrations have widely divergent areas of operation, both by contract and by the development of various types of linkages with specific secondary schools. Table 2 presents the locations of the Youth Apprenticeship Projects, the contracted service areas, and the established goals of apprentice registrations. The key areas of actual operations are described subsequently.

Most of the projects have implemented school linkages in the areas which were contracted. However, there have been exceptions. The Houston project was contracted to serve nine school districts within Harris County. In fact, the project received active cooperation from the large Houston Independent School District and two smaller suburban school districts. Similarly, the Nashville project was contracted to serve the eight county-wide school systems

included in the SMSA. However, the project actually has received significant cooperation only from the large Nashville-Davidson Metro School System and two neighboring county systems. The Rockford project operates out of one area

TABLE 2

YOUTH APPRENTICESHIP PROJECT LOCATIONS, SERVICE AREAS AND REGISTRATION GOALS

Location	Service Areas	Registration Goal
Cleveland	City School District	300
Houston	SMSA	300
Nashville	SMSA	200
New Orleans	5 Parishes	300
Des Moines	City School District	50
New Jersey	State, 21 Counties	400
Rhode Island	State, 5 Counties	250
Rockford	5 Counties	100

vocational center. Since only those students who come to the Rockford Area Vocational Center from home high schools in the surrounding counties are eligible to participate in the Youth Apprenticeship Project, this project achieves only indirect coverage of its contracted five county area.

All of the Youth Apprenticeship Projects have stronger linkages at certain schools in their service areas. Thus, there tends to be an uneven distribution of apprentice registrations across the geographical areas of the projects. The areas which are served seem to depend on a variety of factors, e.g., the types of schools on which the projects focus, the cooperation of the specific schools or school systems, the curriculum offerings at the schools, and the degree of support of primary contact persons within the schools. Consequently,

geographic coverage in implementing apprenticeship-school linkages has certain kinds of contextual constraints which are not always within the control of the project staff.

Across the different project areas, four specific types of data were assessed with regard to features of operational environments which might affect project performance. This assessment included a general determination of unemployment in each project area; the degree of industrial activity, i.e., manufacturing; the relative strength of vocational education in the project area; and the relative acceptance of formal apprenticeship as a method of training. As with the geographical areas covered, diversity among the Youth Apprenticeship Project sites was again evident with each of these explored indicators.

In the states in which the projects have been located, 1977 unemployment estimates range from a low of 4.0 percent in Iowa to a high of 9.4 percent in New Jersey. This compares to a 1977 national rate of unemployment at 7.0 percent. Only two Youth Apprenticeship Project states had unemployment rates above the 1977 national average, New Jersey (9.4%) and Rhode Island (8.6%). Of course the unemployment rates for the specific area of each project are likely to differ from the state figures. Unemployment estimates obtained during the site visits suggest that, with the possible exceptions of Rhode Island, New Jersey and Cleveland, unemployment rates in each of the specific project areas are at or below the national levels.

Using the percent of the 1970 civilian labor force engaged in manufacturing as an indicator of industrial activity in the different project areas, diversity in the levels of manufacturing employment among the sites also was noted. The highest percentage of the 1970 civilian labor force engaged in

manufacturing was in the Rockford SMSA (45.3%); the lowest percentage was in the New Orleans SMSA (14.1%). Four of the Youth Apprenticeship Projects encompassed areas that tended to be above the 1970 national average of 25.9 percent, i.e., Cleveland, New Jersey, Rhode Island and Rockford. The other four project areas were below the 1970 average national percentage of employees engaged in manufacturing.

State emphasis on vocational education in the Youth Apprenticeship Project areas can be estimated, in part, from vocational enrollment figures and local and state expenditures relative to total expenditures on vocational education. Data derived from FY 1976 Federally Assisted Vocational Education Programs, both secondary and post-secondary, suggest considerable variability in vocational enrollments among the states in which the projects are located. Specific figures for FY 1976 are available for four distinct categories of vocational programs, consumer education and homemaking, office occupations, trade and industrial occupations, and agricultural occupations. Of particular interest to the apprenticeship-school linkage demonstrations is the relative percentage of enrollments in the trade and industrial category. For the states in which the projects have been located, the percentage of trade and industrial enrollments ranged from a high of 32 percent in Illinois to a low of 13 percent in Iowa. Interestingly, the percentage of vocational education enrollments in the trade and industrial category was below the national average of 21 percent for all the project states except Illinois and Tennessee.

For expenditures on Federally Assisted Vocational Education Programs in FY 1976, both secondary and post-secondary, the different states in which the projects have been located also showed variability in the percentage of vocational education funds spent from state and local sources. The Illinois budget for vocational education in FY 1976 consisted of 91.8 percent state and

local funds. Louisiana's vocational education budget, by contrast, consisted of 76.8 percent state and local funds. It may be assumed that the higher proportion in Illinois indicates greater involvement in vocational education at the state and local level. The national average for state and local contributions to vocational education in FY 1976 was 89.5 percent. With the exception of Illinois, State and local contributions to the vocational programs in the states selected for Youth Apprenticeship Projects were all below this national average.

In terms of registered apprenticeships in the different states, 1977 data from the State and National Apprenticeship Reporting System (SNAPS) indicated that all the states except Iowa and Rhode Island were ranked in the top half among the 50 states and the District of Columbia. In fact, five of the states were ranked in the 1977 top ten: Ohio (3), Texas (4), Illinois (5), Louisiana (8), and New Jersey (9). However, with regard to the number of apprentices as a proportion of the 1977 labor force employed in nonagricultural establishments, only Louisiana was substantially above the national average (about .7 percent for Louisiana compared to .3 percent for the U.S. as a whole).

Such rough indicators of the local context of the Youth Apprenticeship Projects, of course, are extremely limited. Unfortunately, comparable data only on the specific service areas of the projects were not available for more precise comparisons. However, the crude indicators examined suggest that each project has certain contextual advantages and constraints which could affect project operations. With each of the Youth Apprenticeship Projects, no clear pattern of environmental indicators emerged which would suggest that any one project had a marked environmental advantage in terms of its potential for success or failure. Consequently, it seems wise to conclude that the relative

success or failure of any one of the projects cannot be attributed to simple features of the operational environment.

ADMINISTRATIVE INFORMATION

This section of the chapter consists of five subsections. The subsections include a description of the different types of contractors for the Youth Apprenticeship Projects; an analysis of the major types of school linkages; an overview of the staffing of the demonstration projects; a discussion of the registration procedures at the Youth Apprenticeship Projects; and a brief description of the various research efforts relevant to the apprenticeship school linkage demonstrations.

Contractor Types

The local contractors for the Youth Apprenticeship Projects consist of both school organizations and private agencies. Table 3 presents the project locations, the project contractors and a description of the contractor types.

In general, the Youth Apprenticeship Projects have been contracted to four fairly distinctive types of organizations. In Cleveland and Des Moines, the contractors are single city school districts and the area of project operations has been limited generally within city boundaries. However, for the 1979-80 school year, the Cleveland project has extended apprentice placement activities to three counties. The Houston and New Orleans projects were contracted to community colleges. The Houston project was implemented by a vocationally oriented community college which operates in conjunction with the Houston Independent School District. The project contractor in New Orleans is

an independent, vocationally oriented community college with no direct organizational ties with any of the area's school systems. Two other contractors of Youth Apprenticeship Projects are the state departments of education in New Jersey and Rhode Island. However, management

TABLE 3

YOUTH APPRENTICESHIP PROJECT LOCATIONS, CONTRACTORS AND CONTRACTOR TYPES

Location	Contractor	Contractor Type
Cleveland	Cleveland City School District	Individual School District
Houston	Houston Community College	Community College
Nashville	Greater Nashville Community Committee, Inc.	Private, Non-profit Organization
New Orleans	Delgado College	Community College
Des Moines	Des Moines Independent Community School District	Individual School District
New Jersey	New Jersey Department of Education	State Department of Education
Rhode Island	Rhode Island Department of Education	State Department of Education
Rockford	Rockford Area Vocational Corporation	Private, Non-profit Organization

of the Rhode Island project has been subcontracted to a private, non-profit corporation, the Industry-Education-Labor (IEL) Council of Rhode Island. Organizational linkages with schools in the statewide Rhode Island and New

Jersey projects generally are direct, but the autonomy of individual school districts and even individual schools does not guarantee project participation (linkages) by the schools in the states. The final project contractor type consists of private, non-profit corporations. In Nashville, the project contractor is a non-school related corporation that was formed for the express purpose of managing the Nashville Youth Apprenticeship Project. Consequently, the contractor in Nashville has no organizational linkage with any of the schools in the area. In Rockford, the contractor is also a private non-profit corporation that was formed for the express purpose of managing the local demonstration project. However, the contractor in Rockford, the Rockford Area Vocational Corporation, did establish a primary linkage with the Rockford Area Vocational Center. This area vocational center is operated by the local Rockford School District and primarily serves students from that district. The center also provides vocational-technical courses for students from other neighboring school districts, and receives tuition from those districts in return for this service. Since the center is the principal source of student apprentices, organizational linkages with Rockford area schools have been more indirect than direct. Later on in this report, discussion will focus on some implementation issues regarding the different types of contractors involved in Youth Apprenticeship Projects. Specifically, it appears that the different types of contractors have an impact on the general ease with which apprenticeship-school linkages can be achieved.

Although the contractor types vary among the Youth Apprenticeship Projects, the project monitoring system is organizationally consistent across the different projects. All of the Youth Apprenticeship Projects currently are funded by OYP and are monitored by BAT. BAT Regional Directors serve as the

Federal Representatives for the projects and, in turn, designate relevant state or local BAT staff members to serve as Project Monitors. Coordination at the national level is the responsibility of BAT's National Office and the Office of Youth Programs.

School Linkages

As stated briefly in the first chapter of this report, the specific types of school linkages achieved by the individual Youth Apprenticeship Projects vary considerably. In some cases the linkages with different types of schools have been by design; in other cases the linkages have been conditioned by local circumstances. Nearly all of the Youth Apprenticeship Projects have placed some emphasis on linking up with cooperative education programs in the secondary schools. At the New Orleans, New Jersey and Rhode Island projects, in particular, cooperative education programs in trade and industrial occupations have been a significant source of students for apprenticeship. By design in New Jersey, Cooperative Industrial Education (CIE) Coordinators at the various schools fundamentally are the project-school coordinators for the project. In the Rhode Island project cooperative education coordinators and counselors in the schools have been recruited as project auxiliary staff, in a sense. Cooperative education coordinators in Jefferson Parish schools are major school contact personnel for the New Orleans Youth Apprenticeship Project.

The linkages with schools which have been achieved by the Youth Apprenticeship Projects do not seem to be determined principally by the specific type of school involved (e.g., comprehensive high school, vocational-technical high school, or area vocational-technical center), but rather by the school's

ability to provide student apprentices. From a practical standpoint, it seems logical for the projects to focus on schools that have the largest potential base for student apprentices. Given the diverse ways in which vocational education programs are structured within different school systems, primary linkages can be established at different schools for different apprenticeable occupations. If vocational education programs involving apprenticeable trades tend to be concentrated in a few specific schools, recruiting efforts tend to be concentrated accordingly.

In summary, there does not appear to be a common organizational scheme for project-school linkages in the Youth Apprenticeship Projects. This important finding from the site visits suggests that the compatibility of individual school programs and specific school policy regarding student employment are strong determinants regarding the effectiveness of school linkages. When objectives and operations of the individual school programs and the school's policy on work release time for students can be integrated with the goals of the Youth Apprenticeship Projects, there is considerable potential for apprenticeship-school linkage.

Project Staffing

Staffing of the individual Youth Apprenticeship Projects varies from a single project director-coordinator in the Des Moines project to a staffing arrangement in the New Jersey project where 77 CIE coordinators throughout the state function as non-compensated project coordinators. At each project, the staff member with overall responsibility for project operations generally is designated as Project Director. At those projects where an administrative officer of the school district or state education agency is designated as the Project Director, the person responsible for the project operations is designated as the Project Manager or, in the case of Rhode Island and New Jersey,

as Project Coordinator. Those project staff members engaged in job development, student recruiting, job placement, school contacts and so forth, generally are designated as Project Coordinators, or, as in the case of Rhode Island, as Project Specialists.

The largest number of project staff members, except for the unique case of the New Jersey project, was at the discontinued Houston Youth Apprenticeship Project. Not counting the projects' secretarial staff, the size of each project staff, based upon a determination made at the time of the site visits, was: Cleveland (4); Houston (7); Nashville (5); New Orleans (5); Des Moines (1); New Jersey (79); Rhode Island (4); and Rockford (4). As stated previously, the size of the project staff at the New Jersey project includes the 77 CIE coordinators in the schools. Consequently, a full-time equivalent (FTE) in estimating the staff size has not been computed. The CIE coordinators in New Jersey are not compensated by project funds, but they are vital to the job development activities, student recruiting, and the initiation of paperwork for individual apprentice and apprenticeship program registrations. In the Rockford project, the FTE size of the project staff is really three, since two instructors at the Rockford Area Vocational Center act as half-time project coordinators. The size of the project staff in New Orleans is below the level of seven established in their contract. In the Cleveland contract, 15 vocational education counselors in the Cleveland Public Schools were designated as auxiliary staff, similar to the cooperative education coordinators in Rhode Island. However, most of the student recruiting in Cleveland has been implemented directly through the vocational education instructors in the Cleveland secondary schools.

Registration Procedures

At the different project locations, project staff have developed differing approaches to cooperating with BAT and SAC staff in the registration of programs. These varied approaches include differences in the responsibilities assumed by project staff and differences in the procedures followed. At most of the Youth Apprenticeship Projects, project staff both conduct the student and employer contacts and also complete the necessary paperwork required for apprentice and apprenticeship program registrations. The exception is at the Cleveland Youth Apprenticeship Project where local BAT personnel complete the individual apprenticeship agreements and the apprenticeship program standards after potential employers and students have been identified by the project staff.

The registration processes for individual students and programs tend to vary in complexity according to the specific paperwork procedures established at the different projects. In the Cleveland situation, just noted, few problems have been encountered since BAT staff do all of the necessary paperwork. In New Jersey, the CIE coordinators in the schools complete the registration paperwork, with varying degrees of assistance by apprenticeship coordinators in the schools, prior to transmittal to the Project Coordinator in Trenton. The sponsor-BAT relationship in New Jersey is unique among the projects since the apprenticeship system in that state is a coordinated BAT-State Department of Education enterprise. The apprenticeship coordinators, who are located in each county of New Jersey, are school system employees who have direct responsibilities for apprenticeship activities in the state. CIE coordinators also are school system employees but do not generally have experience or expertise

in apprenticeship. Hence, successful management of registration processes is enhanced when cooperation exists between these two groups of educators. At the New Orleans project, apprentice and apprenticeship program registrations are facilitated by the use of a "short" form registration application that can be used for the registration of individual apprentices and employers' apprenticeship programs simultaneously. Project staff in New Orleans complete the apprenticeship agreements and the apprenticeship program standards under the supervision of the Project Director. The applications then are sent to the state BAT office for review and transmittal to the Louisiana State Apprenticeship Council.

At those projects where project personnel complete the registration paperwork, some problems have almost always been encountered until the project staff members have gained sufficient experience in the paperwork details of apprentice and apprenticeship program registration. However, it appears that staff members at the projects can, with close supervision and training, manage the important activity of completing registration applications. Those difficulties in the registration processes that seem most typical relate to details on those occupations which have not been traditionally apprenticeable.

In addition to the variation introduced by the different roles played by BAT staff and project staff, the number of steps in the registration process also is influenced by whether the states in which the projects are located have State Apprenticeship Councils (SACs). At the Cleveland, New Orleans and Rhode Island projects, registration applications are formally approved or disapproved by the SACs. This means that the registration paperwork flows through both the State BAT office and the SAC office for approval. For those projects in states where there is no SAC, the paperwork management and the

actions on registration applications are implemented directly through the BAT system.

Project-BAT relationships at several of the Youth Apprenticeship Projects have been severely tested at times because of the necessary detail and accuracy required in the registration process. However, these problems, to some extent, may be inevitable considering the somewhat different priorities that BAT staff and project staff observe in the registration process. BAT staff generally seek to insure that high standards of quality are maintained in the registration process. Project staff generally seek completion of the registration process as quickly as possible since student apprentices cannot be counted toward project registration goals until the registration process has been completed. While conflict over these differing priorities frequently occurs between BAT staff and project staff, such conflict generally has not been disruptive of basic project operations.

At three of the Youth Apprenticeship Projects, the students who are apprenticed have a special designation as apprentices. In the Cleveland project, the registered apprentices are labeled "student apprentices," but the designation is used simply to flag apprentices who have been registered through the Cleveland Youth Apprenticeship Project. In New Jersey, the students who are registered as apprentices are designated as "student-learner apprenctices," a derived term to protect the apprenticed students and employers under child labor laws. The term, "student-learner apprentices," has no direct consequence on the registration status of the student in New Jersey. In the Nashville project, the term "student apprentice" is used and means that the apprenticed student is "provisionally" registered. At the time that the student apprentice is graduated from high school--should he or she continue to

be employed in a registered apprenticeship program--the former student is "re-registered" to full registered apprenticeship status. The time and experiences gained as a student apprentice then are credited toward the training hours required for the specific trade involved.

Research Efforts

The Office of Youth Programs of the U.S. Department of Labor has funded three separate research projects which examine all or some of the Youth Apprenticeship Projects. The three contractors for the studies are CSR, Incorporated (CSR), Educational Testing Service (ETS) and MDC, Incorporated (MDC). Only the CSR research project, however, entails study of each of the eight Youth Apprenticeship Projects, i.e., the four Apprenticeship-School Linkage demonstrations funded in 1977 and the four other demonstration projects funded in 1978. Both the ETS and MDC studies involve only those Youth Apprenticeship Projects funded in 1978, plus the numerous Youth Career Development (YCD) projects which are funded by OYP.

The CSR research project has been described previously in Chapter I of this interim report. The MDC project essentially consists of individual case studies (site visit reports) on the Des Moines, New Jersey, Rhode Island and Rockford Youth Apprenticeship Projects and the YCD projects. The case study visits are scheduled to occur during 1979 and 1980. The focus of the site visit reports is directed toward project objectives, project implementation and overall performance, concepts, project credibility and potential for replication. For the Youth Apprenticeship Projects, additional investigative topics are covered to encompass the unique characteristics of the apprenticeship demonstrations compared to the YCD projects. The first round of site

visits has been completed by MDC and the second round of site visits is to be completed in the near future.

The ETS research project is a complex study which examines the impact of project participation on students' vocational attitudes, job knowledge, work attitudes, self esteem, job seeking skills and job holding skills. These knowledge, attitudinal and skill dimensions are examined on a pre and post-test basis and are related to work performance evaluations and later employment characteristics. In addition, comparison students are included in the research design as a quasi-control group. Assessments of the impacts of project participation by the students will be controlled by the level, i.e., duration, of project participation. Essentially, the ETS project is designed to examine the impacts of career information and job skill training on the later work behavior of youth. The overall ETS research design involves YCD projects developed for both in-school and out-of-school youth. The ETS project was to include all four Youth Apprenticeship Projects which received initial funding from OYP in 1978. However, various state regulations in New Jersey made it impossible for the New Jersey Youth Apprenticeship Project to cooperate with the ETS research effort.

In summary, each of the research investigations regarding the Youth Apprenticeship Projects has a different focus and research design. Each research project should, consequently, make a separate and valuable contribution to evaluations of and knowledge about the school to work transition and the impacts of different approaches to youth employment.

PROGRAM ACTIVITIES

This section of the chapter focuses upon four project activity areas which are central to the performance goals of the demonstrations. Specifically, this section consists of four subsections: a description of the individual apprentice registrations achieved by the Youth Apprenticeship Projects; an analysis of the number of apprenticeship program registrations; a presentation of the major occupational areas involved in the individual apprentice registrations; and an analytic perspective on the performance of the Youth Apprenticeship Projects in enrolling specific target groups.

Apprentice Registrations

As stated previously, a specific number of apprentice registrations was established in the contracts as a goal for each of the Youth Apprenticeship Projects. These apprentice registration goals were established for a one-year period, since each of the contracts originally was anticipated to last for 12 months. With the exception of the New Orleans Youth Apprenticeship Project, which reached the apprentice registration goal of 300 during the first year of operation, no other Youth Apprenticeship Project has achieved its targeted goal. Table 4 presents a list of the project locations, the registration goals established for each project, the cumulative number of registered apprentices as of December 31, 1979, and the percentage of the registration goals which the apprentice registrations represent.

Comparisons of the cumulative apprentice registrations for each project have to be viewed in terms of the different periods of operations for the individual projects along with the fact that the geographic boundaries of each project's operation vary considerably. For example, of the original four

TABLE 4

PROJECT LOCATIONS, REGISTRATION GOALS, NUMBER OF APPRENTICES REGISTERED AND PERCENTAGE OF GOAL*

Project Location	Registration Goal	Number of Registrations	Percent of Goal
Cleveland	300	282	94
Houston	300	108**	36**
Nashville	200	176	88
New Orleans	300	588	196
Des Moines	50	35	70
New Jersey	400	221	55
Rhode Island	250	157	63
Rockford	100	68	68
Total	1900	1635	86%

*As of December 31, 1979.
**As of September 31, 1978, the point at which the Houston project was discontinued.

Youth Apprenticeship Projects, Houston operated for a one-year period, while the other three projects have been in operation for about 28 months, including December 1979. The Youth Apprenticeship Projects initiated by OYP in 1978 have been in operation for about 16 months. Assuming a three-month start-up period for each project, yearly comparisons (January to December) are more appropriate. Table 5 presents the project locations, the apprentice registrations and the percentage of the registration goals for each project on a yearly basis.

TABLE 5

PROJECT LOCATIONS, REGISTERED APPRENTICES AND

PERCENTAGE OF GOAL BY YEAR

Project Location	Jan.-Dec., 1978 Apprentices	Jan.-Dec., 1978 % of Goal	Jan.-Dec., 1979 Apprentices	Jan.-Dec., 1979 % of Goal
Cleveland	136	45	146	49
Houston	108*	36*	**	**
Nashville	101	51	75	37
New Orleans	433	144	155	52
Des Moines	**	**	35	70
New Jersey	**	**	221	55
Rhode Island	**	**	157	63
Rockford	**	**	68	68
Total	778	71%	857	54%

*As of September 30, 1978.
**Not applicable.

Table 5 suggests that, on a yearly basis, the four Youth Apprenticeship Projects initiated by OYP in the fall of 1978 are approaching their registration goals at a somewhat faster rate than most of the Youth Apprenticeship Projects initiated in the fall of 1977. The New Orleans Youth Apprenticeship Project achieved 144 percent of its registration goal by the end of 1978, but its rate of apprentice registrations leveled off during 1979. The rate of registrations in the Nashville project also dropped during 1979, but the Cleveland project has performed slightly better in 1979 than it did in 1978. The leveling off of registrations at the New Orleans project during 1979 can be attributed in part to a May and June close-out period at the project, when funding to continue the project was in doubt. No apprentice registrations or apprenticeship program registrations were initiated during this two-month period.

Apprenticeship Program Registrations

Project activities related to the registration of individual apprentices at the Youth Apprenticeship Projects have often run concurrently with the development of registered apprenticeship programs with area employers. The majority of employers contacted about providing job slots for the student apprentices have not been involved previously in formal apprenticeship as a form of training for their employees. Consequently, apprenticeship programs have had to be developed with the employers and registered as part of the apprentice placement activities at the projects. As of the end of December, 1979 a total of 884 apprenticeship programs had been registered through the apprenticeship-school linkage demonstrations, 547 through the four Youth Apprenticeship Projects initiated in 1977 and the remainder (337) developed through the four demonstrations initiated in 1978.

Table 6 presents the cumulative number of registered apprenticeship programs that have been developed at the Youth Apprenticeship Projects as of December 31, 1979. The cumulative number of registered apprentices at each project is also included in the table as a guide to the relationship between these two areas of registration activity. The ratio of the number of apprentices to the number of registered programs provides a rough index of the apprentice placement rate per apprenticeship program developed.

Project staff at the eight Youth Apprenticeship Projects have been instrumental in the registration of 884 new apprenticeship programs with employers in their project areas. It is also important to note that the projects have averaged roughly one new program registration for every two individual apprentice registrations. In general, the student apprentices in the Youth

TABLE 6
PROJECT LOCATIONS, REGISTERED APPRENTICESHIP PROGRAMS, REGISTERED APPRENTICES, AND RATIO OF APPRENTICES TO PROGRAMS*

Project Location	Registered Apprenticeship Programs	Registered Apprentices	Ratio of Apprentices to Programs
Cleveland	153	282	1.84
Houston**	39	108	2.77
Nashville	100	176	1.76
New Orleans	255	588	2.31
Des Moines	38	35	.92
New Jersey	129	221	1.71
Rhode Island	120	157	1.05
Rockford	50	68	1.36
Total	884	1635	1.85

*As of December 31, 1979.
**As of September 30, 1978.

Apprenticeship Projects have been placed at small firms with employers who are new to apprenticeship. Many of the employers, formerly active with cooperative education programs of the schools, have developed and registered apprenticeship programs in response to project contacts. However, once an apprenticeship program has been developed and registered, opportunity exists to place other persons in the employer's program (if there are appropriate numbers of journey persons at the firm or if student apprentices are terminated, voluntarily or involuntarily). In this regard, it seems likely that the development of the newly registered apprenticeship programs by the different Youth Apprenticeship Projects may have more lasting impact on the apprenticeship system as a whole than the individual apprentice registrations.

Occupational Areas of the Student Apprentices

The apprenticeships that have been implemented at most of the Youth Apprenticeship Projects have been in traditionally apprenticeable occupations.

However, occupations in the construction trades have been, by design, largely avoided at most of the Apprenticeship-School Linkage demonstrations. To some degree, of course, those occupations which are taught in the schools and those occupations which are generally accepted as apprenticeable by the registration agencies tend to be the most prevalent occupations at the Youth Apprenticeship Projects.

Although most of the newly developed apprenticeships have been in traditionally apprenticeship occupations outside the construction industry, some apprenticeships have been developed in non-traditional areas. For example, the Rhode Island project staff has developed apprenticeship programs for the occupations of animal health technician, carbide toolmaker, chain machine mechanic, commercial art technician, lobster fisher, and yacht technician, among others. Other Youth Apprenticeship Projects, e.g., the New Orleans project and the New Jersey project, have made some efforts to develop apprenticeships in nontraditional areas, but the achievements in this area have been minimal so far.

Table 7 presents an overview of the major occupations and trade areas in which apprenticed students have been employed. The data in Table 7 are only estimates and represent a general summary of the information available and collected during the Phase I site visits at somewhat different points in time. In other words, the data have been aggregated from the different projects only to provide some indication of the variety of occupations included and the major patterns by trade area.

For the combined Youth Apprenticeship Projects, automotive occupations and metal working occupations have been the most prevalent occupations. Also, roughly 60 percent of the apprenticed students have been in those trades classified as miscellaneous trades and metal working trades under the SNAPS classification system. For the general period for which the data have been

TABLE 7

AREAS OF STUDENT EMPLOYMENT,
ESTIMATED PERCENTAGE IN TRADE AREAS, AND IN
SAMPLE OCCUPATIONS

Trade Area and Sample Occupations	Percent in Occupation	Percent in Trade Areas
Miscellaneous Trades		41
Auto Mechanic	20	
Building and General Maintenance Worker	7	
Machine Repairer	5	
Diesel Mechanic	4	
Cabinet Maker	1	
Auto/Related Body Repairer	1	
Small Engine Mechanic	1	
Electronic Technician	1	
Air Conditioning and Refrigeration Mechanic	1	
Metal Working Trades		18
Machinist	10	
Tool and Die Maker	7	
Welder	1	
Personal Service Trades		8
Medical and Dental Technicians	5	
Cooks, Bakers	2	
Secretaries (Legal, Medical)	1	
Graphic Arts Trades		8
Offset Press Operator	3	
Compositor/Printer	2	
Drafter	2	
Photography Technician	1	
Commercial Art Technician	1	
Offset Plate Maker	1	
Construction Trades		7
Carpenter	2	
Electrician	2	
Plumber	2	
Painter	1	
Other and Unclassified	18	18
Total*	100%	100%

*Cumulative total of registered apprentices at time of Phase I site visits is estimated to be 1305, including the Houston project.

aggregated, it should be noted that the New Orleans project accounted for almost 41 percent of all of the registered apprentices. Consequently, the distribution of the different occupations and trade areas may change over time as the relative proportion of total apprentices from each project changes. Also, of the total number students apprenticed in the construction trades, 39 (44%) were at the discontinued Houston Youth Apprenticeship Project.

Targeted Participant Groups

Contracts for the four Youth Apprenticeship Projects initiated by OYP in the fall of 1978 all have some reference to targeting female, minority and economically disadvantaged students as a project objective. The focus on special participant groups in the newer demonstration projects relates to the legislative authorization for the OYP projects. Specifically, the Youth Employment Demonstration Projects Act of 1977 states that youth demonstrations should target such specific groups. The four Youth Apprenticeship Projects funded in 1977 through the New Initiatives in Apprenticeship have not had targeted participant groups as an objective because the original funding source (the U.S. Secretary of Labor's Discretionary Funds) was not constrained by a legislative requirement to serve specific target groups. However, now that each of the currently operating Youth Apprenticeship Projects is continuing exclusively under OYP funding, the issue of enrolling targeted groups in the projects will need to be clarified with all of the project sponsors.

It is somewhat ironic that the original four Youth Apprenticeship Projects, as a group, seem to have had less difficulty in achieving apprentice registrations with specific target groups than the later OYP demonstration projects. Through December 31, 1979 minority group apprentice registrations

at the Youth Apprenticeship Projects ranged from a low of 3 percent in the Rhode Island demonstration to a high of 41 percent in the Cleveland project. Female apprentice registrations ranged from a low of 2 percent at the Cleveland and New Jersey projects to a high of 31 percent at the New Orleans project. The total number and percent of economically disadvantaged students at each project could not be determined from any data presently available on the project participants.

Accessibility to significant numbers of students who satisfy the target group designations varies according to project service areas, the characteristics of students in the schools, and--particularly--the race and sex distributions in the specific vocational education programs from which project staff recruit. Table 8 illustrates the relationship between individual project achievements in apprentice registrations with regard to minority groups and the percentage of black enrollments in the city or state's elementary and secondary schools for 1970.

TABLE 8

PROJECT LOCATIONS, PERCENTAGE OF BLACK STUDENT ENROLLMENTS IN THE SCHOOLS, AND MINORITY REGISTRATION ACHIEVEMENTS

Project Locations	Percent Black in Elementary and Secondary Schools (1970)	Percent Minority Registrations (12/31/79)
Cleveland	47.8	41
Houston	29.3	54*
Nashville	21.1	9
New Orleans	55.4	21
Des Moines	7.5	23
New Jersey	12.8	5
Rhode Island	3.3	3
Rockford	3.8	6

*As of September, 1978.

The data presented in Table 8 are intended to provide a rough estimate of the targeted group achievements of the individual Youth Apprenticeship Projects in relation to school enrollment parameters. Most of the minority group participants in the projects have been black students, but in the Houston project a significant proportion of Spanish-American students were registered as apprentices before the project was terminated. Also, the percentage of black student enrollments in the schools may have changed considerably since 1970. However, the data presented in Table 8 are intended to illustrate that the recruitment of minority students may be more difficult at some of the demonstration sites than others. Consequently, such factors should be considered in evaluating the targeted participant group achievement at the different projects.

In terms of registering females in apprenticeable occupations, the issues are somewhat different. The female student populations in the project areas are generally sufficient to provide a large recruiting base. However, most of the traditionally apprenticeable occupations tend to be ocupations that have traditionally been male-dominated. Sex stereotyping with regard to occupational choice obviously is a general issue which is not restricted to apprenticeship and the Youth Apprenticeship Projects. For example, student enrollments in trade and industrial areas are largely male, often by the choice of individual students. School and project efforts to recruit females into these traditionally male areas are just emerging at some school systems. In general, those Youth Apprenticeship Projects that are wedded to specific vocational education and/or cooperative education programs are likely to experience considerable problems in achieving a significant percentage of female apprentices.

DEVELOPMENTAL STRATEGIES

For the purpose of this report, developmental strategies are defined as those approaches, materials or activities intended to promote the individual Apprenticeship-School Linkage demonstrations in the local project areas. This overall section on developmental strategies includes discussion under three headings: promotional activities, employer stipends, and advisory committees.

Promotional Activities

Nearly all of the Youth Apprenticeship Projects have developed some kind of flyer to promote the demonstrations and to recruit employers and students for participation in the projects. At some of the projects, e.g., at the Cleveland, Rhode Island, and New Orleans projects, distribution of these flyers has been attempted on a relatively broad scale, either with students, employers, or both. In the Des Moines project, a letter describing the project is selectively mailed to employers who list help wanted ads for positions that might be apprenticeable. In the New Jersey project, informational brochures have been developed for distribution among students in the high schools.

The general impact of the mass distribution of these promotional flyers from a public relations standpoint is not known. However, from a recruiting standpoint, the results in the New Orleans and Cleveland projects suggest that the benefits of mass distribution are limited, for both students and employers. At both of these projects, the staff members indicated that personal contacts were the most effective method of recruiting. For employers, this apparently requires personal contacts by project staff members at each potential employ-

er's place of business. For students, the personal contacts involve classroom presentations and individual conversations with students who express some interest in apprenticeship positions.

At some of the Youth Apprenticeship Projects, contacts with various types of employer associations and/or professional associations also have been used to promote the projects. In the Houston, Des Moines and Rhode Island projects, for example, some employer associations have been involved in identifying particular employers who might be interested in hiring student apprentices. At two project sites, Des Moines and Houston, union organizations have been involved in some capacity. In the Houston project, the Joint Apprenticeship and Training Committee for the Electrical Contracting Industry provided referrals for student apprentices to participating employers. In the Des Moines project, the local union affiliated with the International Association of Machinists deferred the wage scale provisions in its bargaining agreement so that student apprentices could be hired by new truck dealers at rates below the prevailing apprentice wage.

Contacts and presentations at professional education association meetings, e.g., local school principal associations, guidance counselor associations, and vocational education associations, etc., have been employed as a promotional activity at quite a few of the projects. In addition, contacts and/or presentations with Parent Teacher Associations, various service clubs and local Chambers of Commerce have been used as a promotional strategy at many of the Youth Apprenticeship Projects. Overall, however, it could not be determined from the site visits whether such contacts and/or presentations have had any direct or indirect consequences for the operation of the projects.

Employer Stipends

As stated in Chapter I of this report, employers of the student apprentices are offered training stipends at all of the projects except at the New Jersey project. At the New Jersey project, the contractor, the New Jersey Department of Education, declined the use of training stipends as an inducement to promote employer participation in the project. At least part of the reason for the rejection of funds for training stipends was the contractor's concern that monetary incentives might adversely affect employers' participation with various cooperative education programs in the schools. Targeted Jobs Tax Credits, however, can be applied by employers to the apprenticed students as well as other cooperative education students. How extensively the Targeted Jobs Tax Credit program is used by these employers participating in the New Jersey project and in the other Youth Apprenticeship Projects is not known at this time. Phase II of the present study will examine closely the impacts of financial incentives such as the training stipends and the Targeted Jobs Tax Credits on employers' decisions to participate in the projects.

During the site visits at most of the projects, efforts were made to solicit the views of a few employers concerning the importance of the training stipends. Responses tended to range from statements to the effect that the training stipends were the only reason for their participation in the project, to statements that the training stipends were of little or no importance in influencing their project participation. A large number of employers stated that the referral aspects of the projects were as important as the stipends in their decision to participate in the project. It is known that some employers do not request the training stipends from the project sponsors, but this situation appears to be atypical for employers generally.

In summary, no conclusions on the basis of the site visits can be made about the impacts of training stipends on employers' decisions to participate in the Apprenticeship-School Linkage demonstrations. Obviously, the training stipends do not influence the employers participating in the New Jersey project. However, for employers generally it appears that their reactions toward training stipends as an incentive for project participation may be quite varied.

Advisory Committees

The establishment of a project advisory committee at each Apprenticeship School Linkage demonstration is written into each project contract. Also, the specific constituencies to be represented on the project advisory committees frequently are specified in the project contracts (e.g., business, labor, educational, and minority group representatives). The initial formation of and/or the functioning of advisory committees at the Youth Apprenticeship Projects have been a problem at most of the demonstration sites. In some cases, e.g., at the Rockford and Rhode Island projects, issues arose over whether project operators, either the contractor or the subcontractor, could serve as their own advisory committee. At the Cleveland project, considerable controversy arose at the start of the project between the advisory committee and the contractor, the Cleveland Public School District. To some extent, the initial controversy at the Cleveland project may have been influenced by the possibility that the Cleveland Public School District would default on its contract if the City of Cleveland went into bankruptcy. However, site visit findings also suggested that the advisory committeee in Cleveland was operating beyond its role as an advisory group.

In addition to problems encountered in the formation of some of the project advisory committees, it appears that questions sometimes arise concerning the specific functions of the advisory committee. At some of the projects, for example, the advisory committees are neither very active nor are regular meetings scheduled. The overall observations of the study teams after the site visits were completed seemed to suggest that advisory committee members were often supportive of the demonstrations in their area, but that the expectations and roles for the advisory committees generally needed to be clarified if the committee members were to be effective agents for the projects.

OPERATIONAL EXPERIENCES

This section of the chapter presents a description of the major features of the Youth Apprenticeship Projects as they have evolved in response to the projects' experience with implementation. Five subsections are included in the section. The subsections include discussions of operational experiences regarding project start-up, student recruiting, job development, staff functioning, and school relationships. Some overlap with previous sections of this chapter is unavoidable because of the similarity and interrelationships among the content areas, e.g., promotional activities and student recruiting, school linkages and school relationships, etc. However, the discussions in this section treat these areas from a distinctly different perspective.

Start-up

All of the Youth Apprenticeship Projects, with the possible exception of the New Orleans project, have encountered start-up problems in project imple-

mentation. Both the monthly progress reports on apprentice registrations and the comments from project staff during the site visits suggest that most of the demonstration projects have experienced a minimum six to nine months delay before achieving reasonably complete implementation. Reasonably complete implementation is defined generally as either (1) that point at which the projects begin to operate fairly smoothly, with most of the project elements in place, or (2) that point at which apprentice registrations show noticeable cumulative gains. Obviously, none of the demonstrations started with a project staff intact, yet some projects took nearly three months before a full complement of project staff was in place. Also, because the project contracts were awarded in September, some projects encountered initial difficulties in obtaining revisions in the school schedule of recruited students. In most of the projects, considerable time also was devoted to establishing employer contacts and developing apprenticable job slots for the students. However, at the New Orleans project, over thirty students were registered by the end of the third month of the contract. New Orleans project staff initially placed quite a number of student apprentices at worksites where apprenticeship programs already were registered. The initial placement strategy at the New Orleans project, however, has not been typical of all of the Youth Apprenticeship Projects.

In general, the start-up difficulties at the Apprenticeship School Linkage Demonstrations have involved such factors as project staff recruitment, initiation of school relationships, employer and student recruiting, and the development of the skills and procedures necessary for registering apprentices and apprenticeship programs. At a few of the projects, school contacts were not initiated until after the project contracts had been signed.
The risks inherent in this approach are discussed further in Chapter III.

The general start-up problem with regard to integrating project funding decisions with the requirements and constraints of the school year and student scheduling has been a key issue at nearly every project. The constraints of the school year and associated factors in the implementation processes of school-linkage projects can hardly be overemphasized. The influence of such school system planning and scheduling constraints on the start-up of the Youth Apprenticeship Projects is described more completely in Chapter III.

Student Recruiting

Student recruiting activities at the Youth Apprenticeship Projects have been determined largely by the relative breadth or restriction of contacts between the projects and the different types of vocational education programs. For example, student recruiting at the Rhode Island and New Jersey projects has been confined largely to cooperative education programs in trade and industrial areas. Some of the other projects, e.g., the New Orleans and Des Moines projects, have tended to recruit students from a greater diversity of vocational education programs.

In general, the student recruiting efforts at the different projects have tended to reflect three important factors in the operations of the projects. First, student recruiting is partially affected by the types of apprenticeable job slots that are available or can be developed readily in the project areas. For example, the demand for machinists in the areas of the Cleveland and New Orleans projects has had a moderate to strong influence on the student recruiting efforts at these projects. Second, since student recruiting efforts tend to be made through school personnel, the concentration of student recruiting tends to occur where good relationships can be established between

project staff and school personnel. For example, in the Nashville and New Orleans projects, student recruiting efforts have been directed through different types of school personnel, e.g., vocational instructors, guidance counselors and cooperative education coordinators, in the various school districts involved. Third, the factor of general student interest in apprenticeship and/or employment tends to have a bearing on student recruitment. For example, student recruiting in those schools with a student body primarily oriented toward academic areas tends to be less successful than in those schools with a strong vocational orientation.

Finally, while student recruiting does not seem to follow an entirely uniform pattern from project to project, the major stimulus for student recruiting efforts is often the apprenticeship registration criterion, based upon which the projects are monitored by DOL. Simply stated, nearly all of the projects have played the "numbers game" to some extent. Thus, the overriding importance of this one single criterion tends to have a disproportionate impact on student recruiting. Conversely, the criterion probably has a relatively negative effect on project efforts both in recruiting minority and female apprentices and in developing apprenticeship positions in non-traditional occupations.

Job Development

Job development unmistakably tends to be the principal activity of most project staff members at Youth Apprenticeship Projects. This emphasis upon job development represents the projects' response to the very tangible and specific demands of the reporting system. Since the projects were precluded from interaction with construction industry apprenticeship programs, and since

the number of other types of registered apprenticeship programs available to cooperate with the projects generally was relatively small, project staff frequently had little choice but to develop new apprenticeable positions in order to attempt to achieve their registration goals. The relationship between the job development activities and the reporting system will be discussed further in Chapter III.

In general, project staff have emphasized contact with small employers who do not have experience with apprenticeship and whose employees are not represented by a union. In their job development efforts, project staff have to elicit a willingness on the part of employers to accept student apprentices on a part-time basis and to cooperate with the formal procedures required to initiate and maintain an apprenticeship program. The incentives which project staff can employ to encourage employers to undertake these responsibilities include the availability of stipends, the provision of a free referral service, and the attractiveness to employers of the opportunity to build their own skilled labor pool by becoming personally responsible for the training of young entrants to the labor market.

Staff Functioning

In general, staff functions may be viewed within three overall areas. First, project staff make contacts with schools and students in order to establish an effective system for referring qualified candidates to employers who have agreed to cooperate with the projects. Second, project staff make contacts with employers to develop the necessary part-time positions for student apprentices and to promote the adoption of registered apprenticeship. These two major functional areas of staff activity have been described in the

two immediately preceding subsections. The third major functional area of staff activity involves maintenance of the two basic sets of relationships which result from the activities in the other two functional areas, described above. Since this third functional activity area has not been treated previously, a brief description of the activities undertaken in this third area is provided below. In addition, this subsection describes the two basic assignment patterns of project staff.

In addition to establishing relationships between schools and employers, project staff members also devote a significant effort to maintaining and enhancing the relationships developed. With student apprentices, project staff members tend to serve as informal counselors or coaches. At one site, project staff help prospective student apprentices to prepare for their initial interviews with interested employers. More commonly, project staff members become involved with problems that arise in conjunction with the students' employment. Project staff members may attempt to resolve problems such as difficulties of student apprentices in relating to co-workers and supervisors, or problems with student apprentices who exhibit a pattern of excessive absenteeism or tardiness at the worksite. In addition, project staff also may provide informal counseling in other areas, such as encouraging student apprentices to complete their high school education or advising student apprentices concerning their management of their personal lives in relation to their responsibilities at school and at work. In short, the more dedicated project staff members act very much as though they have their own caseload of student apprentices for whom they feel a certain sense of responsibility.

With employers participating in Youth Apprenticeship Projects, project staff members function as providers of various types of technical assistance.

In addition to the assistance provided with personnel problems, such as those described above, project staff tend to assist employers in two specific areas. First, project staff members assist employers to understand and respond to the procedures required by the project sponsor in order to obtain the employer stipend. Second, project staff members also assist employers to understand and discharge their responsibilities as sponsors of registered apprenticeship programs. Thus, they come to serve as auxiliary staff to the BAT and/or SAC field representatives in the local areas.

Two basic patterns have been followed in assigning responsibilities to project staff members. Under the first pattern, project staff members are assigned to specific geographic territories and they make contacts with schools and employers in their assigned areas. Under this system, project staff members at the same location usually collaborate in trading information so that students and employers in different areas can be matched, as appropriate. Under the second pattern, project staff members are assigned to occupational rather than geographic areas. Under this system, each project staff member specializes in terms of his or her occupational area of involvement but maintains contacts throughout the geographic area of operation at the project.

School Relationships

While a variety of other linkages have been important to the relative successes or failures of each of the Youth Apprenticeship Projects, a major factor has been the establishment and maintenance of school relationships. The school relationships generally have been at a formal and informal level. The formal school relationships, represented by the official stance of various school administrators with regard to project participation and cooperation,

have been essential to the school linkages. For example, in all of the projects and often within the individual projects, the official position of school administrators on the Youth Apprenticeship Projects has ranged from outright rejection to active support. Support of the apprenticeship school linkage concept by individuals at high administrative levels in the different school systems, however, has not been sufficient to guarantee cooperation with the projects by individual schools.

From an operational point of view, individual school principals can, and generally do, control project access to students and the school staff. However, individual school principals also can officially support the projects or indirectly defer participation decisions to other school staff, e.g., department heads, or individual instructors. In this type of situation, the formal official stance of the school principal is rather neutral. This imposes a requirement on the project staff to establish and maintain linkages with various school personnel on a "catch as catch can" basis.

Many of the Youth Apprenticeship Projects have attempted to develop school relationships with different sectors of the school staff. In other words, guidance counselors, cooperative education coordinators, and individual vocational education instructors all have been approached about cooperation with the project. In many instances, it has been at this stage of interaction that the school relationships have taken on a more informal character. This seems attributable to the fact that cooperation with the project at this level requires a working relationship between the project staff and individuals in the schools in order to identify potential student apprentices, set up recruiting in classes, and so forth. Some of the respondents interviewed during the site visits particularly noted the strong interpersonal and working

relationships that had been developed over the course of the project operations.

In summary, school relationships across the different Youth Apprenticeship Projects seem to be characterized by both formal and informal types of interactions. No distinctive patterns of school relationships seem apparent across all of the Youth Apprenticeship Projects, but the quality of the school relationships seem to depend upon the degree to which mutually satisfactory working relationships could be established and maintained.

III. MAJOR ISSUES ARISING FROM IMPLEMENTATION OF THE YOUTH APPRENTICESHIP PROJECTS

The previous chapter of this report provided a descriptive overview of the eight Youth Apprenticeship Projects. This chapter identifies and discusses a selection of general issues or themes which arise based upon consideration of the Youth Apprenticeship Projects as a single program demonstration activity conducted by the Department of Labor. Seven topics are identified and discussed in the sections which follow. The first section treats the interface between the Department of Labor and the educational organizations which have sponsored Youth Apprenticeship Projects. The second section identifies the major types of organizations which have sponsored Youth Apprenticeship Projects and discusses the major strengths and weaknesses of each of these types of sponsorship arrangements. The third section points out the influence that the reporting system has had upon the course of project operations. The fourth section delineates the relevant differences between the older Youth Apprenticeship Projects originally funded by BAT and the newer projects originally funded by OYP, and discusses some of the implications of this fundamental duality within the demonstration effort. The fifth section treats relevant aspects of the relationship between cooperative education and the Youth Apprenticeship Projects. The sixth section discusses the involvement of local labor unions in Youth Apprenticeship Projects. The seventh section describes the current state of several independent efforts to replicate the apprenticeship-school linkage concept.

INTERFACE BETWEEN THE DEPARTMENT OF LABOR AND EDUCATIONAL ORGANIZATIONS

The fundamental linkage which has been forged in implementing the Youth Apprenticeship Projects is the contractual tie between the Department of Labor

and various educational organizations. The many other linkages which could be identified are distinctly secondary to this basic relationship. It is in the relationships between the Department of Labor and the various sponsoring educational organizations that the greatest problems have arisen and the most important lessons are to be learned.

Among the many linkages currently being forged between the Department of Labor and educational organizations, the Youth Apprenticeship Projects focus specifically on the relationship between apprenticeship and vocational education at the secondary level. Linkages between vocational education and apprenticeship are not intrinsically new since the related instruction component of apprenticeship has, for some time, involved vocational educators in the apprenticeship system. It is no secret that even this comparatively low level of interaction between apprenticeship and vocational education has generated a considerable amount of conflict and controversy between the apprenticeship community and the vocational education community.

The Youth Apprenticeship Projects add a new dimension to the relationship between vocational education and apprenticeship by having students begin apprenticeships while still enrolled in secondary school. Administering the implementation of this concept has required a considerable amount of interaction between officials at all levels of the Bureau of Apprenticeship and Training, and officials of the educational organizations which serve as sponsors of the projects. Although staff associated with other units of the Department of Labor have been involved in this effort, it is BAT staff members who have played the lead role in interfacing with the relevant educational organizations.

The Youth Apprenticeship Projects attempt to help students cross the boundary between "the world of school" and "the world of work." Experience with the Youth Apprenticeship Projects indicates that there are significant institutional barriers between these two worlds which must be surmounted before any significant assistance can be provided to the students who are attempting to cross their own developmental boundary between these two worlds. Since there are many different types of projects which currently are addressing the interface between school and work, it may be assumed that there are a variety of viewpoints concerning the existing institutional barriers and the most effective modes of cooperation between organizations operating in these two spheres. The viewpoints presented here are based solely upon observation of the implementation of one very specific type of project designed to help link school and work. Therefore, the experience gained and the lessons learned correspond to the specific dimensions of the Youth Apprenticeship Projects.

It is not surprising that the differing orientations of apprenticeship organizations and educational organizations give rise to differing operating styles and approaches among the people who come to earn their livelihood within these two different areas. Some of the problems which have arisen in the implementation of the Youth Apprenticeship Projects reflect the juxtaposition of two very different operating styles which have been able to relate to each other only with limited success. Since it is the Department of Labor which is funding the demonstration projects and this research effort, it may be assumed that the Department of Labor wishes to learn, through experience and analysis of that experience, how to interact more successfully with educational organizations. Therefore, the identification of problem areas

presented in this section emphasizes those instances in which people associated with the Department of Labor have failed to understand salient features of the operations of educational organizations. This emphasis in the presentation is not intended to imply that the educational organizations are in any way free of their own set of misunderstandings of the Department of Labor. Rather, the emphasis is intended to provide a focus upon those problem areas which are most immediately amenable to improvement through actions on the part of the Department of Labor.

In initiating some Youth Apprenticeship Projects, the Department of Labor has displayed a lack of appreciation for the rather stringent rules of protocol which prevail in the educational environment, particularly among local school districts. Local school districts exhibit a high degree of autonomy and independence and their cooperation is sought by a wide variety of individuals and organizations for a correspondingly wide variety of purposes. Consequently, local school districts tend to be very cautious in granting their cooperation. As a result, the cooperation of a local school district is something that cannot be taken for granted in any specific instance. Rather, meaningful cooperation on the part of a school district usually is obtained only as the result of a rather lengthy and elaborate process of negotiation. The larger the school district, the more difficult this process is likely to be.

Meaningful cooperation on the part of a school district will occur only after the interests of the school system have been carefully assessed and the cooperation has been approved at a relatively high administrative level. In some instances, this administrative approval may be further delayed pending approval by a school board. After all these demands of protocol have been

met, the answer to a request for cooperation still may be "no." The Youth Apprenticeship Projects in Nashville and Houston targeted a relatively large number of school districts while actually obtaining cooperation from relatively few. This is not surprising in light of the autonomy of local school districts. Yet the Houston project, in particular, was faulted for not obtaining more universal participation in the project.

Closely related to the failure to understand the rules of educational protocol is a failure to understand the critical importance of timing and long-range planning in any effort to integrate activities within the rather rigidly constrained school year. For example, it is obvious that an outside organization seeking the cooperation of a school district may have to invest some time in order to obtain the desired cooperation. Therefore, tangible results may not be immediately forthcoming. Yet Department of Labor officials have, at times, been oblivious to this constraint. When Task Force members were making their initial contacts with candidate organizations, a State Labor Commissioner agreed to sponsor a project if his organization could be provided with funds for feasibility assessment and planning in cooperation with the relevant educational organizations. This request was denied and, as a consequence, the organization refused to act as a sponsor. Meanwhile, most of those organizations that accepted sponsorship ended up spending their first year of "implementation" dealing with the very types of issues one usually associates with planning or feasibility assessment.

Another example of a failure on the part of the Department of Labor to appreciate the importance of timing is the pattern of initial funding and renewal of projects. For fiscal years 1977, 1978, and 1979, the Department of Labor consistently initiated or renewed funding very near the September 30

closing date of the Federal fiscal year. The fact that the projects were not funded until after the school year had begun meant that significant planning opportunities were lost. Under this funding pattern, performance during the first semester of each school year has been significantly impaired and overall performance during each school year has not attained the levels which might have been attained had long-range planning been possible. In this regard, the current decision for fiscal 1980 to move the funding activities well forward within the fiscal year is a welcome departure from past practices. This will permit project staff to plan for the summer and the coming school year during the closing months of the current school year. This change in the schedule for funding decisions will bring the projects' planning activities into far greater harmony with the planning activities taking place in the schools. There is little doubt that this is the most helpful single change that could have been instituted by the Department of Labor to demonstrate its understanding and acceptance of the constraints under which educational organizations operate.

In some instances, there have been strained relationships between project staff members and BAT staff assigned to monitor the projects. Although the conflict between these two groups usually can be linked to specific problems and issues, there have been instances in which the basic conflicts over problems and issues appear to have been intensified by fundamental differences in outlook between the two groups. In other words, some of the conflicts between BAT staff and staff of the relevant educational organizations appear to reflect a collision between the two very different operating styles which are somewhat characteristic of the two different types of organizations. It is important to emphasize that this description does not apply to the majority of

the Youth Apprenticeship Projects. In most instances, BAT staff and sponsor staff have developed cordial and constructive working relationships. The description of the more negative type of interaction is applicable only to a distinct minority of the projects. However, among this minority of projects, the pattern is sufficiently consistent to warrant comment.

In short, the experience gained through implementation of the Youth Apprenticeship Projects suggests strongly that the linkage which is of overriding importance is the relationship between the Department of Labor and the educational organizations which undertake sponsorship of Youth Apprenticeship Projects. If this basic relationship goes awry, it is unlikely that any other positive feature of a Youth Apprenticeship Project will prevent serious difficulties from arising. Conversely, if the relationship between the Department of Labor and the sponsoring organization is characterized by a clear perception of mutual interest and a common commitment to cooperate fully for the good of the project, the other necessary relationships tend to fall into place. The design of the Youth Apprenticeship Projects and the experience of Department of Labor staff help to insure the cooperation of employers. Administrative support from an educational organization, combined with the participating educators' clear understanding of the unique set of opportunities and constraints inherent in their organization, help to insure the cooperation of students. When cooperation between DOL and an educational organization becomes translated into cooperation between employers and students, the project is well on its way to successful performance.

In most cases, the Youth Apprenticeship Projects represent a positive interaction between the Department of Labor and educational organizations. The projects have helped to build bridges between the world of school and the

world of work. In a few instances, the Youth Apprenticeship Projects represent a negative interaction between the Department of Labor and educational organizations. These negative instances provide a clear warning that it always is possible for projects such as these to fall victim to the very barriers that they are intended to overcome.

VARIATION IN THE TYPES OF SPONSORING ORGANIZATIONS

As described in the previous chapter, the Department of Labor has contracted with four major types of organizations for the purpose of implementing Youth Apprenticeship Projects. These four types of organizations are:

- State Education Agencies;
- Local Education Agencies;
- Community Colleges; and
- Non-profit Corporations.

Observations based upon the research activities conducted to date suggest that there may be relative advantages and disadvantages to each type of arrangement. A brief discussion of the apparent strengths and weaknesses of each approach is presented below.

The two state education agencies which sponsor Youth Apprenticeship Projects both were selected for sponsorship during the second round of project funding. Therefore, both these projects currently are in their second year of operation. For the other three types of sponsors, at least one project of each type was funded during the first round of project funding. Therefore, as a type, the state education agency sponsored projects have operated within a somewhat more restricted time frame than the other three types of projects. As a result of the difference in time depth, observations concerning the pro-

jects sponsored by state education agencies are more tentative than the observations concerning the other three types of sponsorship arrangements.

Based upon performance to date, the selection of state education agencies for project sponsorship appears relatively promising. The principal strength of this approach is that state education agencies have some inherent advantages over other types of organizations in obtaining the cooperation of local school districts. Association of a Youth Apprenticeship Project with a state education agency gives the project a meaningful "stamp of approval" in the eyes of local school administrators. This may encourage local administrators to adopt an initial assumption in favor of the project instead of an initial assumption in opposition to the project. Two limitations also are inherent in sponsorship by state education agencies. First, those familiar with the educational world emphasize that this approach is viable only with a state education agency that is regarded by local officials as "strong," particularly in the area of vocational education. Second, if the Department of Labor contracts with a state education agency, all other sponsorship options within that state are effectively foreclosed. Therefore, before entering into such an arrangement, the Department of Labor should be satisfied that there are no other potential sponsorship arrangements within that state that are of serious interest to the Department.

Two local school districts sponsor Youth Apprenticeship Projects. One of these local school districts received funding with the first round of projects in 1977 and the other local school district received funding with the second round of projects in 1978. Therefore, the time perspective on this approach to sponsorship may be considered average. In addition, one of the sponsoring districts is very large, while one is very small. Based upon observation of

these two examples, it appears that contracting directly with school districts represents a relatively conservative approach to sponsorship. This approach focuses upon one local education agency and, thus, tends to insure cooperation from that organization. At the same time, this approach effectively excludes other local education agencies in the area from the opportunity to participate in the project. In terms of performance, the two school district sponsors may be characterized as relatively consistent performers. Therefore, contracting with interested local school districts appears to constitute a relatively low risk approach to sponsorship in which the outcome may be anticipated with a fair degree of reliability. This approach is not likely to generate a dramatically high level of performance, nor is it likely to generate a disappointingly low level of performance.

Two projects were sponsored by community colleges. Both these projects were funded with the first round of projects in 1977 and both these projects have their own unique status. One of them is the only project which has substantially exceeded the performance goal established in the contract. The other project is the only Youth Apprenticeship Project which has been terminated. This rather stark contrast may portray both the potential pay-off and the potential risk inherent in this approach to sponsorship. However, the two projects in this category also share some common features with one of the projects in the following category. Therefore, these two projects are discussed further following the treatment of the fourth category of project sponsors.

Two projects are sponsored by non-profit corporations. One of these is affiliated with an educational organizaton and one is not. One of these projects was funded with the first round of projects in 1977 and the other was funded with the second round of projects in 1978. Project staff have concluded that there is little to recommend this basic sponsorship arrangement.

Since the contracts are not directly with an educational organization, this arrangement does not provide any of the assurances of cooperation from the educational side which the other, more direct approaches to sponsorship do provide. The independence which this approach confers upon the sponsor is purchased at the price of a basic objective of these projects--establishing direct linkages between schools and organizations oriented to apprenticeship. It appears that the non-profit corporations were established because of misgivings about more direct linkages. In one case, it appears that these misgivings occurred primarily on the part of the educational organization. In the other case, it appears that these misgivings occurred primarily on the part of the Department of Labor. Experience with this approach suggests that sponsorship by an independent, non-profit corporation represents a halfway measure which does not confer advantages commensurate with the disadvantages which are inherent in this approach.

As mentioned previously, one of the projects sponsored by a non-profit corporation shares some common features with the two projects sponsored by community colleges. Specifically, the Rockford project may be considered to be in a class by itself because of its unique tie with an area vocational center. However, the projects in Nashville, New Orleans and Houston all share an important feature. Each of these projects attempted to serve a major metropolitan area without making a direct sponsorship link with any single educational jurisdiction in the local area. Each of these projects, therefore, sought to involve a number of local education agencies in the Youth Apprenticeship Project.

Experience suggests that the effort to serve multiple local districts with a single Youth Apprenticeship Project is a rather tricky undertaking.

One sponsor of this type has significantly outdistanced all the others in performance. Another sponsor of this type is a distinctly lackluster performer. The third sponsor of this type had its contract cancelled after the first year of operation. One possible explanation for this variation in performance is that an ideal sponsoring organization in this situation needs to have some previous involvement with the school districts in the local area, yet also needs to have relatively scrupulous neutrality among all of them. One sponsor in this category lacked previous involvement with the local educational organizations, while another lacked the requisite level of neutrality. Only one of the three sponsoring organizations seemed to have the right balance of both these features. Thus, it appears that the effort to serve a jurisdictionally fragmented metropolitan area with a single project sponsor other than a state education agency, represents a relatively high-risk approach to sponsorship. This may be inferred from the range of performance of the three projects of this type.

INFLUENCE OF THE REPORTING PROCEDURES UPON PROJECT OPERATIONS

The Department of Labor's specification of targeted numbers of registered apprentices in the original contracts and the requirement for monthly reports in terms of apprentices registered has provided a rigorous and tangible criterion of performance. Based upon this reporting system, the performance of each Youth Apprenticeship Project may be assessed against its original goals and compared with the performance of the other projects. At the same time, this reporting system has had its own marked impact upon the priorities observed in activities undertaken by project staff. The program design for

the demonstration projects and the contracts themselves specify significant levels of orientation and preparation activities with tenth and eleventh grade students in addition to the job placement activities with twelfth grade students. However, the reporting system does not in any way reward activities undertaken in the schools with tenth and eleventh grade students. Consequently, project staff members have become very responsive to the actual demands of the reporting system.

In order to generate reportable results, project staff members have to identify employers who are willing to accept students into registered apprenticeship positions. Since the number of employers with existing registered apprenticeship programs who were willing to accept students was very small at most project locations, and since the apprentice registration goals were relatively high, project staff members have placed strong emphasis upon contact with potential employers.

Contacts by project staff members with employers who are regarded as candidates for the projects generally include both job development and apprenticeship promotion. Since most of the employers initially contacted are not apprenticeship sponsors, they must be convinced both of the desirability of hiring a student apprentice on a part-time basis, and also of the desirability of registering an apprenticeship program in order to hire the student through the project.

In response to the need to develop and register suitable employment positions, most project staff members spend the majority of their time making contacts with employers. Though important, the role accorded the schools in this framework tends to be distinctly secondary. As long as the schools function as a source of qualified candidates for the apprenticeship positions developed, they have fulfilled their primary purpose as far as most project staff

members are concerned. As a result, project staff members have devised a wide variety of ingenious approaches to obtaining student referrals, but they have undertaken very few other activities within the schools.

Obviously, the emphasis upon immediate placement of twelfth grade students is fostered by the reporting system. In addition, the annual pattern of funding renewal serves to intensify this emphasis. Although the projects now have received funding for several years of operation, this funding consistently has been provided by the Department of Labor on an annual basis. Since the projects never have had any assurance of funding beyond the current year, they have not perceived it to be in their interest to work with any students other than those students in the twelfth grade. The twelfth grade students consistently are the only ones who can generate meaningful results for the projects during the known lifetime of funding.

If any of the projects had received funding within a multi-year framework, it is possible that project staff members would have perceived it to be in their interest to conduct more intensive orientation and preparation activities with tenth and eleventh grade students. Efforts devoted to such activities during the current year might well enhance reportable accomplishments during subsequent years. As it is, however, the projects never have any reason to anticipate funding beyond the current year. Consequently, the motivation to work more intensively in the schools with tenth and eleventh grade students has been notably absent.

The current funding cycle for the projects is anticipated to run through September 30, 1981. Therefore, during the coming school year the projects will have an assurance of funding through the summer months following the 1980-81 school year. Since most of the projects have made an effort to have

some student apprentices begin apprenticeships during the summer immediately following completion of eleventh grade, project sponsors will have an incentive during the coming school year to conduct orientation and preparation activities with eleventh grade students. It will be interesting to see whether this feature of the new funding pattern will have any impact upon the efforts exerted by project staff members to orient and recruit eleventh grade students during the coming school year.

DUAL ANCESTRY OF THE YOUTH APPRENTICESHIP PROJECTS

It is obvious that the seven operating Youth Apprenticeship Projects fall into two rather distinct groups for administrative purposes. Three of the projects received initial funding from BAT in 1977. The other four projects received initial funding from OYP during 1978. Those which received their initial funding from OYP have had to observe three requirements that the projects originally funded by BAT have not yet been required to observe. First, with the provision of OYP funds came the issue of orienting the recruitment of participants toward specific target groups, particularly the economically disadvantaged. Second, the newer OYP funded projects were required to implement the ETS research effort. Finally, the OYP funded projects were required to cooperate wth the MDC monitoring effort.

During the 1978-79 school year, the seven projects represented two parallel operations. During this school year, the three older projects continued operations based upon unexpended funds from their original contracts, while the four newer projects began operations under OYP funding. During the 1979-80 school year the projects were drawn somewhat closer together through

the provision of OYP funding to the three older projects. However, none of the specific OYP requirements were imposed upon the three older projects during the 1979-80 school year. Currently, OYP anticipates funding all the Youth Apprenticeship Projects during the 1980-81 school year. It will be interesting to observe the level of homogeneity among the projects which will result from this third infusion of OYP funds.

In addition to the dual ancestry of the seven projects in terms of their funding sources, since 1978 there also has been a dual administrative structure within the Department of Labor. This dual administrative structure resulted from the joint participation by BAT and OYP in the management of the seven Youth Apprenticeship Projects. While OYP has come to assume full responsibility for funding the projects, BAT has maintained full responsibility for monitoring the projects. Although the basic nature of this functional specialization is not difficult to grasp, the implementation of this approach has proved to be somewhat more challenging.

Problems have arisen because of the practical difficulty in separating the funding and monitoring functions, because of the basic logistical demands for communication and coordination between OYP and BAT, and because of the differences between OYP and BAT in organizational approach. In addition to these problem areas which are internal in origin, there also have been problems which arose externally as the result of a certain amount of ambiguity and uncertainty on the part of the Youth Apprenticeship Project sponsors concerning the true focus and channels of decision-making authority. Current developments indicate that the initial problems of coordination between OYP and BAT are well on their way to being resolved. Resolution of these problems should result in clear communication with the field concerning the desired

approach to project implementation as well as consistency in the exercise of decision-making authority in response to problems arising in the field. These improvements, in turn, should result in improvements in the performance and responsiveness of the Youth Apprenticeship Projects themselves.

RELATIONSHIP BETWEEN COOPERATIVE EDUCATION AND THE YOUTH APPRENTICESHIP PROJECTS

The relationship between cooperative education and the Youth Apprenticeship Projects is a matter of considerable interest and considerable subtlety. The specific relationship between cooperative education and the Youth Apprenticeship Projects is directly analogous to the broader relationship between vocational education and apprenticeship, described in a previous section of this report. Cooperative education programs and the Youth Apprenticeship Projects are closely related yet distinctly different. There is the potential for mutually beneficial cooperation between cooperative education and the Youth Apprenticeship Projects. There also is the potential for stiff competition between them. Further, there is no simple factor which satisfactorily accounts for the crucial difference between cooperation and competition. In some instances, organizational and structural factors appear to be at work. In other instances, interpersonal relationships and attitudes appear to play the more significant role.

Whatever the specific factors which account for the different types of relationships betweeen cooperative education and the Youth Apprenticeship Projects, the relationships between the various cooperative educational programs and the eight Youth Apprenticeship Projects may be viewed within four categories. First, there are three projects (Cleveland, Des Moines, and Rockford) in which the relationship between cooperative education and the projects is

not a major factor in project operations. Second, there are two projects (Houston and Nashville) in which the relationship between cooperative education and the projects may be characterized as relatively competitive. In these instances, cooperative education coordinators tend to be suspicious of the Youth Apprenticeship Projects because they fear that the subsidies or the long-term connotations of apprenticeship will interfere with their existing relationships with students and/or employers. Third, there are two projects (New Orleans and Rhode Island) in which the relationship between cooperative education and the projects may be characterized as relatively harmonious. In these instances, cooperative education coordinators tend to encourage eligible employers and students to cooperate with the projects, and project staff tend to provide cooperative education coordinators with information about nonapprenticeable positions that may be suitable for co-op students. Finally, there is one project (New Jesey) which is in a class by itself in terms of the relationship between cooperative education and the Youth Apprenticeship Project. In this project there is complete integration between cooperative education and project operations since the Cooperative Industrial Education (CIE) Coordinators serve as project staff. In addition, employer stipends have been eliminated at this project in order to minimize any distinctions between apprenticeable and non-apprenticeable positions and to avoid any competition between cooperative education and the Youth Apprenticeship Project.

The four categories presented above may be reduced to three categories. The first category includes three instances in which cooperative education and the projects are basically irrelevant to one another. The second category includes four instances in which cooperative education and the projects are

significantly interactive. In the case of two of these projects, the basic interaction is positive and in the case of the other two projects, the basic interaction is negative. Thus, this second category represents a consolidation of the second and third categories described above. The third category in this collapsed framework includes the one instance in which cooperative education and the project are completely integrated.

The discussion of the relationship between cooperative education and the Youth Apprenticeship Projects presented in this section leads to three basic conclusions. First, the relationship between cooperative education and the Youth Apprenticeship Projects frequently is important and, as such, is amenable to description and categorization. Second, the factors which account for the difference between positive and negative interactions between cooperative education and the Youth Apprenticeship Projects are not immediately evident. Third, despite the imperfect understanding which exists concerning the factors which determine the nature of the relationship between cooperative education and the Youth Apprenticeship Projects, responsible program operators and responsible program researchers will continue to pay close attention to this important area so that a better understanding of this important relationship may be achieved.

INVOLVEMENT OF LOCAL UNIONS IN YOUTH APPRENTICESHIP PROJECTS

As previously mentioned, there has been a general prohibition against participation of construction industry apprenticeship programs in Youth Apprenticeship Projects. Obviously, this precluded participation by many union affiliated apprenticeship programs since most large union affiliated apprenticeship programs are within the construction industry. Because of this

prohibition, most Youth Apprenticeship Projects have promoted and developed a relatively large number of apprenticeship programs with small employers who had not previously participated in apprenticeship and whose employees were not represented by a union.

There have been two instances of involvement by local labor unions in Youth Apprenticeship Projects. In Houston, the Electrical Joint Apprenticeship and Training Committee (JATC), which is jointly sponsored by the local labor union affiliated with the International Brotherhood of Electrical Workers (IBEW) and the local employers' association affiliated with the National Electrical Contractors' Association (NECA), became involved with the Houston Youth Apprenticeship Project. This involvement was contrary to official policy for the Youth Apprenticeship Projects since the Electrical JATC is a construction industry apprenticeship program. However, relevant national officials were aware of the participation by the Electrical JATC in Houston and gave this exception to the rule tacit approval. As described more fully in the Houston Site Visit Report, the Coordinator of the Electrical JATC was very enthusiastic about the results of participation in the Houston Youth Apprenticeship Project and wrote a strong letter of protest when the project was terminated.

In addition to the participation by the Electrical JATC in Houston, there is another, more recent instance of possible participation by an apprenticeship program affiliated with a local labor union. At the time of the site visit to the Des Moines Youth Apprenticeship Project, the local union affiliated with the International Association of Machinists (IAM) had granted a waiver of the starting apprentice wage rate negotiated in the bargaining agreement so that student apprentices could be hired at lower rates. It is

not clear how closely this local union intends to become involved with the Youth Apprenticeship Project. However, it is clear that this involvement would not be in conflict with the prohibition against participation of construction industry apprenticeship programs because the apprenticeship program sponsored by the IAM does not operate within the construction industry. Therefore, if this arrangement were consummated, it would be the only instance of participation by an apprenticeship program which is affiliated with a local labor union but which is not in the construction industry.

The experience of the Youth Apprenticeship Projects reveal three basic policy options with respect to participation by local labor unions. First, Youth Apprenticeship Projects can continue to emphasize the promotion and development of non-union apprenticeship programs without making any particular effort to link up with apprenticeship programs which are affiliated with local labor unions. Second, Youth Apprenticeship Projects can attempt to increase the participation of apprenticeship programs which are affiliated with local labor unions but which are not within the construction industry, such as the IAM affiliated apprenticeship program in Des Moines. Finally, Youth Apprenticeship Projects can seek authorization to permit participation by any local apprenticeship program which wishes to participate, including union affiliated apprenticeship programs in the construction industry. Considering the force of the prohibition against participation by construction industry apprenticeship programs, this third policy option may be purely hypothetical. However, there has already been one exception to this prohibition and the reported results suggest that this arrangement was beneficial to the student apprentices, the construction industry JATC, and the Youth Apprenticeship Project.

INDEPENDENT EFFORTS TO REPLICATE THE APPRENTICESHIP-SCHOOL LINKAGE CONCEPT

During the conduct of the research effort, it was brought to the attention of CSR project staff members that, in several locations, efforts are underway to attempt replication of the Apprenticeship-School linkage concept without Department of Labor funding. The three locations that have come to the attention of CSR project staff are the State of New Mexico, the State of Ohio and the State of North Carolina.

It appears that the effort to replicate the concept in New Mexico has progressed further than in any of the other locations. During fiscal year 1979, planning funds were made available from the Governor's discretionary CETA funds and were turned over to the SAC for the purpose of conducting initial developmental activities related to the concept. During fiscal 1980, implementation funds were made available from the same source. At latest report, the SAC no longer was involved, but the implementation was continuing under the sponsorship of another unit of the State Department of Labor.

In Ohio, the Division of Vocational Education in the State Department of Education has initiated activities to secure funding for a single coordinator position in each of five cities in the State. The State Department of Vocational Education was willing to contribute one-third of the necessary funding and the Governor's office was willing to contribute an equal amount. At last report, the endeavor was in need of a third sponsor.

Preliminary discussions have taken place in North Carolina concerning implementation of an Apprenticeship-School Linkage Project. Staff members from the SAC and the Office of the Commissioner of Labor have met with officials of the Deparment of Labor and with CSR project staff members in an

effort to obtain specific information concerning the mechanics of the apprenticeship-school linkage concept. At latest report, this endeavor had not progressed beyond the stage of initial discussions.

The description presented in this section of the various attempts to replicate the apprenticeship-school linkage concept differs from the other sections of this chapter because it does not, strictly speaking, fall into the category of an issue related directly to the implementation of the Youth Apprenticeship Projects. Rather, this topic may be considered an interesting sidelight in relation to the main topics of this report and this chapter. Basically, a brief treatment of this subject has been included so that the interested reader would be aware of the fact that interest in funding projects of this type has extended beyond the confines of the Federal Government.